

TWO NEW SPECIES AND ONE NEW RECORD OF MEGASELIA RONDANI FROM CHINA (DIPTERA, PHORIDAE)

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Abstract Two new species and one new record of the genus *Megaselia*, *M. tibisetalis* Fang, sp. nov., *M. setifurcata* Liu, sp. nov. and *M. labialis* Brues, collected from Jiangxi and Hainan of China, are described and illustrated. The type specimens are deposited in College of Biological and Environmental Engineering, Shenyang University.

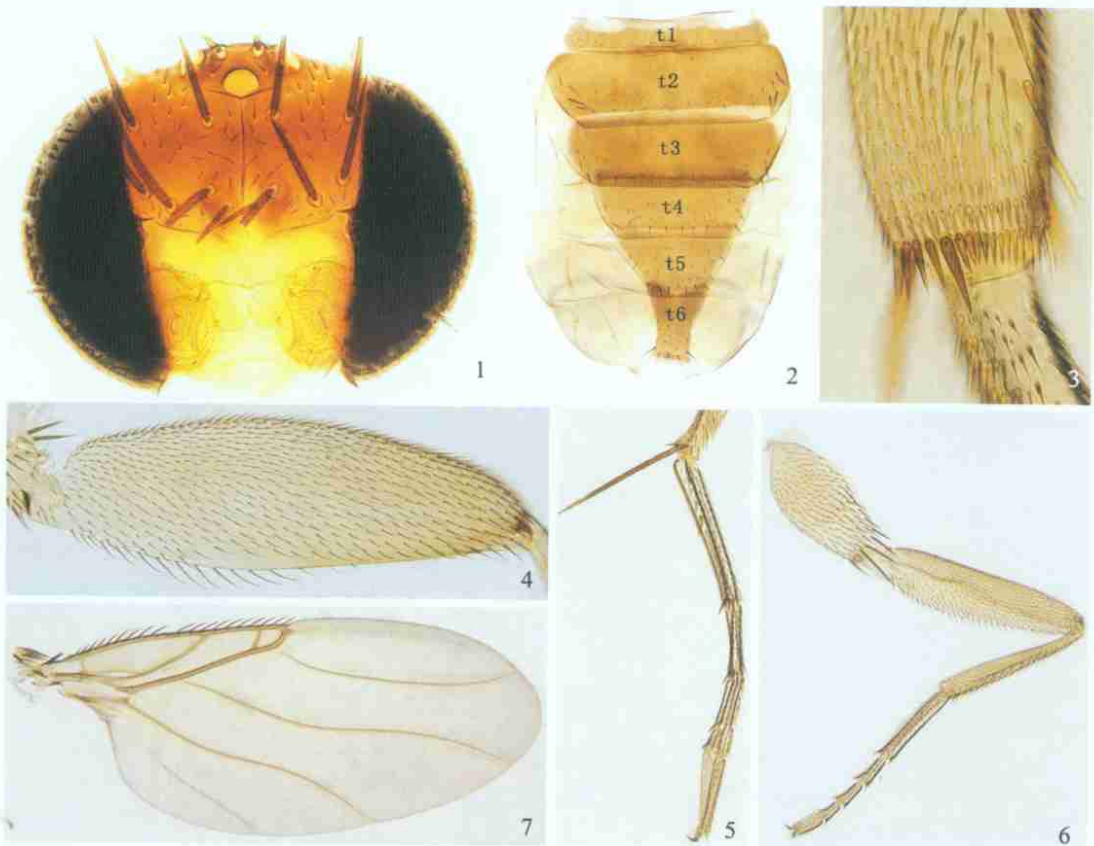
Key words Phoridae, *Megasia*, new species, China.

The genus *Megasia* was established by Rondani in 1856 with *Megasia crassinura* Rondani (= *Phora costalis* Roser 1840). About 1 500 species have been described in the world and more then 400 species are known from the Palearctic Region (Disney 1989). According to our statistics, only 52 species were recorded from China mainland and Taiwan. Recently we found two new species and one new record, collected from Jiangxi and

Hainan Provinces of China.

Megasia tibisetalis Fang, sp. nov. (Figs1-127)

Male. Frons dark brown, broader than long (1159B 1100), with about 60 hairs and a distinct median furrow. Lower supra2antennal bristles short, about 1P2 as long as upper pair, which are as far apart as pre2ocellars. Antials slightly lower than antero2laterals, midway between the



Figs1-127. *Megasia tibisetalis* Fang, sp. nov., ` . 1. Frons. 2. Abdominal tergites 2-6. 3. Apical comb of hind tibia. 4. Hind femur. 5. Apical spur and tarsi of middle leg. 6. Fore leg. 7. Wing.

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latter and upper supraantennals. Preocellars at about same level on frons as mediolaterals, and the four bristles in equal distance. Postpedicels yellow and without SPS (subcuticular pit sensilla) vesicles. Arista obvious longer than width of frons, with pubescence. Palps yellow, narrow, with strong bristles on apical half.

Thorax yellow. Mesopleuron with uniform hairs. Notopleuron with 3 bristles and no cleft. Scutellum with a posterior pair of bristles and an anterior pair of hairs.

Abdominal tergites brown or dark brown, with sparse hairs, which long in both sides of tergite 2. Tergites 4/6 distinctly becoming narrowed. Venter yellow with fine hairs below on segments 3/6. Hypopygium yellowish brown, with yellow anal tube. Each side of epandrium with short hairs. Hairs at tip of anal tube shorter than longest hairs of cerci.

Legs yellow. Foretarsal segments 1/24 slender, segment 5 slightly wider and longer than 4, all five segments with posterodorsal hair palisade. Apical spur of mid tibia long, nearly as long as metatarsus. Midtarsal segment 4 extremely short, segment 5 elongated and about 2/5 times as long as the former. Hairs below basal half of hind femur longer than those of anteroventral row of outer half. Hind tibia with posterodorsal hairs, those in upper third fine, without anterodorsal hairs. Spines of apical comb of posterior face all simple, short and robust.

Wings yellow, with brown veins. Costal index 0147. Costal ratios 41/23B11/75B11/00. Costal cilia about 0108 mm long. Vein Sc runs to R₁. No hair at base of vein Rs. Fork large. Axillary ridge with 2 bristles. Halteres brown.

Body length 1182210 mm.

Female. Frons yellow. Mid tarsus with normal segments 4 and 5. Hairs below basal half of hind femur shorter than those in male. Other characters are same as male.

Holotype ♀, Jiangxi, Mt. Jinggang, 6 Aug. 2005, collected by FANG Hong, ZHU Wei and XIAO Chunxia. Paratypes: 2 ♀♀, 4 ♂♂, same data as holotype.

Etymology. The specific name refers to the long apical spur of mid tibia.

Remarks. In the keys to British *Megaselia* (Disney, 1989) this species runs to *M. satellaris* (Wood) and *M. lutea* (Meigen) at couplet 12, but the latter two with bare mesopleuron and yellow halteres. In the keys of Borgmeier (1966) *M. tibialis* will run to couplet 15 of Group 0. It will be easily distinguished by the elongated tarsus 5 of middle leg.

Megaselia scifurcana Liu, sp. nov. (Figs 18214)

Male. Frons yellow to yellowish brown, broader than long (1137B1100), with 54 hairs and a distinct median furrow. Lower supraantennal bristles about 2/3 as long as upper pair, which are slightly closer than pre-

ocellars. Antials slightly lower than antero-laterals, nearly midway between the latter and upper supraantennals. Preocellars slightly lower on frons than medio-laterals and all four bristles almost equally spaced. Antenna and palps same as *M. tibialis*.

Thorax similar to *M. tibialis*.

Abdominal tergites with sparse hairs, which slightly long in both sides of tergite 2 and feathered in both sides of tergite 6. Tergites 1, 3 and rear of tergite 2 brown or dark brown, the others paler. Venter yellow with hairs below on segments 3/6. Hypopygium brown, with yellow anal tube. Upside of epandrium with short hairs. Each downside of epandrium with 3/4 feathered bristles. Hairs at tip of anal tube shorter than hairs of cerci.

Legs yellow. Foretarsal segments slender. Mid legs similar to *M. tibialis*. Hairs below basal half of hind femur longer than those of anteroventral row of outer half. Hind tibia with posterodorsal hairs, those in upper third fine, without anterodorsal hairs. Apical comb of posterior face with 1 bifurcated spine.

Wings yellowish, with yellowish brown or yellow veins. Costal index 0145. Costal ratios 41/29B11/00B11/56. Costal cilia about 0108 mm long. Vein Sc runs to R₁. No hair at base of vein Rs. Fork large. Costal section 1 and basal half of vein 3 thickened. Axillary ridge with 2 bristles. Halteres brown.

Body length 1172212 mm.

Female. Veins and mid tarsus 4/5 normal. Abdominal tergite 6 without feathered hairs. Other characters are same as male.

Holotype ♀, Jiangxi, Mt. Jinggang, 6 Aug. 2005, collected by FANG Hong, ZHU Wei and XIAO Chunxia. Paratypes: 4 ♀♀, 2 ♂♂, same data as holotype; 1 ♀, Hainan, Mt. Jianfeng, 800 m, 20 May 2004, collected by LIU Guangchun.

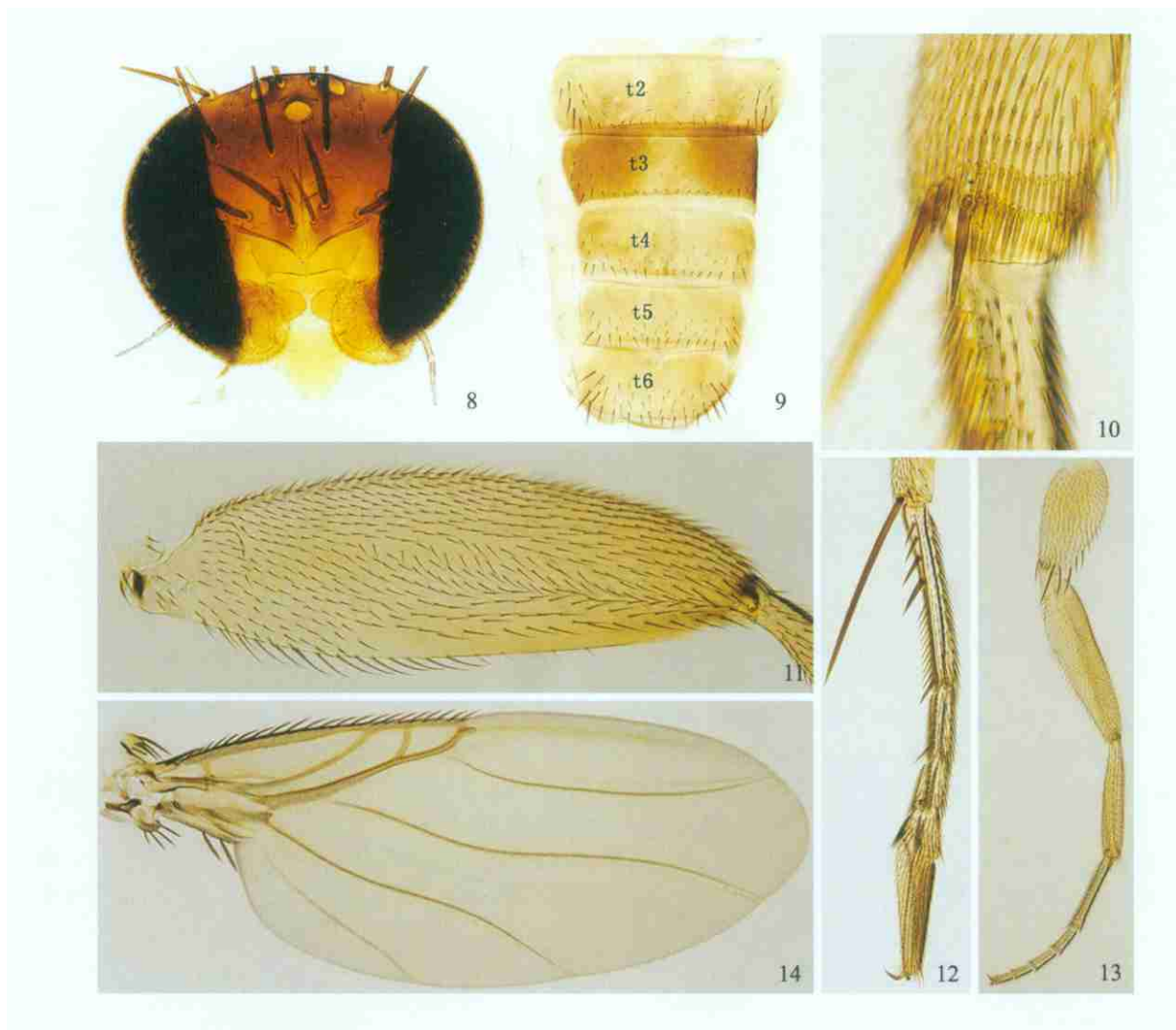
Etymology. The specific name refers to the bifurcated spine of apical comb of hind tibia.

Remarks. *M. scifurcana* is similar to *M. tibialis*, but differs from the latter in having thickened veins and bifurcated spine of apical comb.

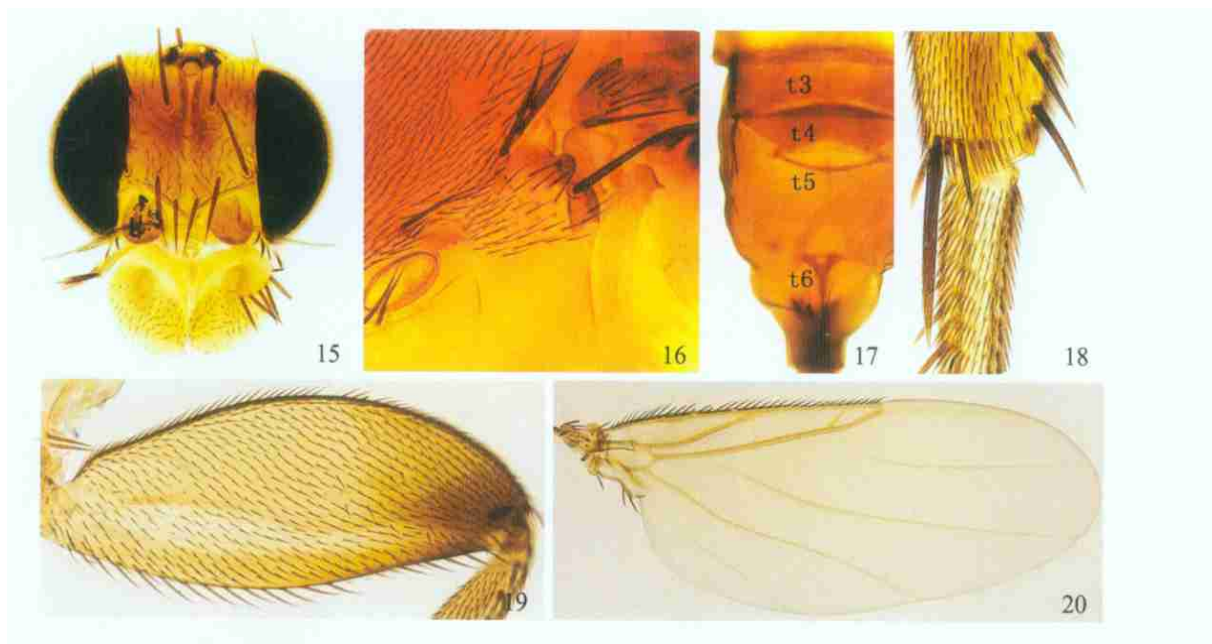
Megaselia labialis Brues (Figs. 15220)

Megaselia labialis Brues, 1936: 372, 381. 2Borgmeier, 1966: 203, 280.

Male. Frons with about 110 hairs. Postpedicels small, without SPS vesicles. Proboscis yellowish brown, with labella large, shield shaped, concave below and convex above, each being 1/5 times or more wider than postpedicels. Mesopleuron with short hairs and 1 long bristle. Notopleuron with 3 bristles and no cleft. Hypopygium small, yellow. Each side of epandrium with short hairs. Hind tibia with strong posterodorsal hairs and weak anterodorsal hairs. Apical comb of posterior face with 4 bifurcated spine. Costal index 0155. Costal ratios 3103B2135B1100, Costal cilia about 0108 mm long. Vein Sc obscure. Base of vein Rs with 1 short



Figs 8-14. *Megastia stufurana* Liu, sp. nov., ♀. 8. Frons. 9. Abdominal tergites 2-6. 10. Apical comb of hind tibia. 11. Hind femur. 12. Apical spur and tarsi of middle leg. 13. Fore leg. 14. Wing.



Figs 15-20. *Megastia labialis* Brues. 15. Frons and labella, ♀. 16. Hairs and one long bristle of mesopleuron, ♂. 17. Abdominal tergites 3-6, ♂. 18. Apical comb of hind tibia, ♂. 19. Hind femur, ♀. 20. Wing, ♀.

hair. Axillary ridge with 2 bristles. Halteres dark brown. Body length 210 mm.

Female. Labella not enlarged. Abdominal segments 526 mostly membranous, tergites 426 as Fig. 17. Costal index 015720165. Costal ratios 3140B2166B1100. Body length 2132215 mm.

Specimen examined. 1 ♀, 4 a a, Hainan, Mt. Jianfeng, 328 Apr. 1992, collected by LIU Guang2Chun and WANG Min; 1 a, Hainan, Mt. Jianfeng, 700 m, 19 May 2004, collected by LIU Guang2Chun and WANG Min; 2 ♀♀, 2 a a, Jiangxi, Mt. Jinggang, 6 Aug. 2005, collected by FANG Hong, ZHU Wei and XIAO Chun2Xia.

Distribution. China (Hainan, Jiangxi), newly

recorded; Philippines.

Remarks. This species is easily recognized by its enlarged labella in male and the structure of abdominal tergites in female.

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中国异蚤蝇属二新种及一新纪录种记述 (双翅目, 蚤蝇科)

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摘 要 记述采自江西和海南省的异蚤蝇属 2 新种, 1 中国新纪录种: 胫距异蚤蝇 *Megasdia tibisetalis* Fang, sp. nov., 叉刺异蚤蝇 *M. scdifurcana* Liu, sp. nov. 和阔唇异蚤蝇 *M. labialis* Brues. 模式标本存放于沈阳大学生物与环境工程学院。

两新种的共同特征是: 中侧片具均一的毛, 背侧鬃 3 根, 无背侧裂, 小盾片鬃 1 对。中足胫节端距长; 端跗节膨大, 延长。后足胫节具后背纤毛, 缺前背纤毛。Sc 脉发达,

关键词 双翅目, 蚤蝇科, 异蚤蝇属, 新种, 中国。

中图分类号 Q9691 4511 8

伸达 R1, Rs 脉基部无毛, 叉室宽大。两者的主要区别是: *M. tibisetalis* 的翅脉无膨大, 后足胫节端栉简单, 不分叉; 而 *M. scdifurcana* 的前缘脉第 1 段和第 3 脉的基半部均膨大, 且后足胫节端栉有 1 根呈叉状。

两新种与 *M. sutdlaris* (Wood) 和 *M. lutea* (Meigen) 相似, 中足端跗节均膨大, 延长, 但后两者中侧片光裸无毛。

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